

Submission Template

COAG Review Discussion Paper 3 – Support for small-scale off-grid renewable generation

Overview

This submission template should be used to provide comments on:

COAG Review Discussion Paper 3 – Support for small-scale off-grid renewable generation

The purpose of this discussion paper is to provide an introduction to the key issues relating to support for off-grid renewable generation within the Renewable Energy Target (RET), and to encourage input on these issues from individuals, businesses and organisations to inform the review process

Stakeholders are asked to use the template provided to answer the questions posed in the discussion paper. The Department will also accept any other documents, further information, costing tables etc that are attached to the submission template.

Contact Details

Name of Organisation:	SMARTimbers Cooperative
Name of Author:	Andrew Lang
Phone Number:	03 55 962164
Email:	andrewlang@smartimbers.com.au
Website:	www.smartimbers.com.au
Date:	28.10.09

Confidentiality

All submissions will be treated as public documents, unless the author of the submission clearly indicates the contrary by marking all or part of the submission as 'confidential'. Public submissions may be published in full on the Department of Climate Change website, including any personal information of authors and/or other third parties contained in the submission. If any part of the submission should be treated as confidential then please provide two versions of the submission, one with the confidential information removed for publication.

A request made under the *Freedom of Information Act 1982* for access to a submission marked confidential will be determined in accordance with that Act.

Do you want this submission to be treated as confidential? Yes No

Submission Instructions

Submissions should be made by **close of business 30 October 2009**. The Department reserves the right not to consider late submissions.

Where possible, submissions should be lodged electronically, preferably in Microsoft Word or other text based formats, via the email address - RET@climatechange.gov.au.

Submissions may alternatively be sent to the postal address below to arrive by the due date.

Renewable Energy Sub Group Secretariat
Department of Climate Change
GPO Box 854, Canberra ACT 2601

For more information phone: 02 6159 7428

Off-grid renewable generation

Question 1: Solar Credits currently apply up to the first 1.5 kilowatts (kW) of capacity installed. Should Solar Credits or a similar 'REC multiplier' mechanism under the RET be used to provide further incentives for off-grid renewable generation? If so, what level of eligible capacity (such as 20 kW) should apply? How would this compare with the level of support under the RRPGP and what size 'REC multiplier' would be appropriate?

It is equitable for other schemes such as biomass-to-energy to receive RECs for off-grid electricity production, where they result in generation of carbon-neutral energy to displace fossil fuel-generated energy. As for heat pumps and solar hot water it should be available for heat generated that is utilised to replace fossil fuel-generated heat - particularly electricity that is used to produce heat via electrical resistance heating systems.

It should be on the same scale of 1 REC per 1 MWh generated. Any other approach is inequitable. Currently biomass to energy as a source of carbon-neutral energy is prejudiced against, since heat produced and utilised to replace fossil fuel-generated energy is not regarded as 'green' energy.

20 kw is a minimum level and it could clearly be lifted toward 1 MW capacity or more. The aim is surely to encourage investment in carbon-neutral energy of all types, with the objective that up to 20% of energy is from this source by 2020.

Question 2: What other eligibility criteria should apply and what would be an appropriate process for phasing out the incentive?

Whole life cycle assessments should be done to rate various options. This has been done in other countries. Using this system will identify which of the low emission 'renewable' energy options can actually most rapidly pay back the energy investment in their construction and placement.

To date solar PV and Wind claim rapid payback times based on industry assurances rather than good science. Heat pumps, solar hot water and biomass to energy are all likely to be significantly ahead of these on a whole life cycle basis.

Experience of the Renewable Remote Power Generation Programme

Question 3: Are the RRP GP program parameters still relevant if incentives for off-grid renewable generation are provided under the RET? Views are sought on:

- whether 1km from a main grid is an appropriate definition for remote 'off-grid';
- whether the \$30,000 connection costs threshold is appropriate for sites that are considered close to a main grid; and
- whether support equivalent of up to 50 per cent of the cost of the renewable generation and essential enabling equipment is appropriate.

The criteria for 'off-grid' should depend on

- a) the cost to connect to the grid, and**
- b) the scale of energy requirement, and hence generation (including heat), for the property and the likely capital cost of this plant**

so for a household a connection over 1 km is a significant cost to bear and could well justify installing a wind generator and battery bank as an alternative. For a farm or small business it may be more economic for the short to mid term to connect over that distance.

Costs for connection, and subsidies for systems, should be designed so that market forces are maintained, so that there is a clear progression of reduction of subsidy or other assistance over time, and the outcome of installation of cost-effective, reliable and safe low emission energy generating systems (including heat) are encouraged.

Cost of renewable generation

Question 4: Information is sought on the costs of different small-scale off-grid renewable generation systems for example in different geographical locations, in particular:

- the capital cost of the technology, including installation;
- annual running costs, including maintenance;
- the effective life of the system;
- the capacity factor of the system, if applicable; and
- how this compares to fossil fuel based generation (such as diesel).

For biomass to heat energy the cost of \$1000-1500/kWh

For biomass to heat and electricity (in the form of gasification and a gas motor and generator) \$2500-3500/kWh.

Annual running costs including maintenance – Maintenance assumed at 1.5 hours a day 5 days a week. For a 1.5 MW baseload heat supply, with chip fuelled furnace full operating costs assumed to be about \$30,000. (plus cost of chip: 1100 tonnes @ \$144/t = \$161,500)

Effective life – about 20-30 years

Capacity factor – normally a system of this type would be assumed to produce for up to 6000 hours a year, and to run at optimal capacity for that time, ie to be a baseload generating system – whether for heat only, or for heat and electricity.

In most respects, other than effectively nil carbon emissions and lower fuel costs, this is comparable to a diesel-fuelled generator

Impact on existing eligible technologies and REC market

Question 5: Would providing incentives for off-grid renewable generation have a major impact on the deployment of existing eligible technologies?

The omission of biomass-fuelled systems from the current repertoire of low emission energy generating options is a poor reflection of policy making in Australia compared to many other countries.

Biomass to energy has the capacity and flexibility of optional technologies and scales to play a major role in achieving the national renewable energy MRET targets.

Providing incentives for off-grid RE generation would have a considerable impact on deployment of available RE options and would be one way to stimulate investment into the more cost-effective and versatile technologies. However incentives need to be of a reliable and predictable nature to encourage investment, and to provide a clear timeline for reduction of incentives (the debacle of federal government solar PV programs being cut without warning for remote communities is an example of how not to do this sort of thing).

Remote Indigenous communities

Question 6: What would be the wider economic and social benefits of renewable generation under the RET for remote Indigenous communities? How can these benefits be used to close the gap in Indigenous disadvantage?

Indigenous communities are just a part of the overall community. Where reliable energy is available for hot water and electricity it may have a beneficial impact on health and education but possible will have a negative impact if the technology just means more reliance on whitefellas.

The more members of the community are involved in maintenance and supply to the energy plant the better.

Any other additional comments